

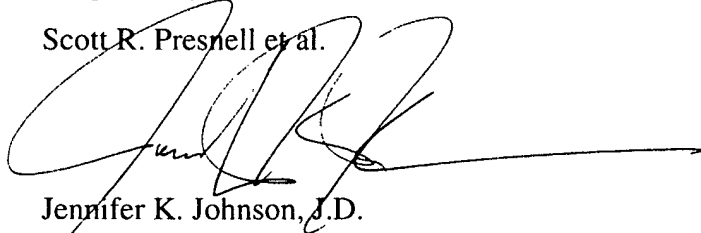
**REMARKS**

Claims 1-7, 19-20 and 43-54 are pending in the instant application. Claims 8-18, 21-42, and 54-66 have been withdrawn from consideration. Claims 4-7, and 43-46 were canceled in order to pursue certain embodiments of the invention pursuant to business interests. Claim 2 was amended to rewrite the claim in independent format. Claim 3 was amended to provide dependency on claim 2 rather than claim 1. Claim 50 was amended to provide a claim commensurate with the scope of the invention. Claim 54 was amended to rewrite the claim in independent format so that it no longer depends from a non-elected claim. Claims 67-71 were added. Claim 67 depends from claim 2, and encompass embodiments of the inventive polypeptides further comprising tags, labels, and the like. Independent claim 68, and dependent claims 69 and 70 are drawn to homodimeric receptor complexes within the scope of the invention. Claim 71 is drawn to a method of producing a soluble homodimeric receptor complex, as supported throughout the specification and original claim 54. Newly added claims 68-71 fall within the species election. Support for the amendments and new claims is provided throughout the specification. The instant claims are drawn to zcytor16 polypeptides and related inventions. A marked-up version of the changes made to the claims by the current amendment, "Explanation Of Amendments With Markings," is provided. An Appendix with the claim set including amended claims is provided for the Examiner's convenience, and shall not be construed as submission of a re-presented claim set under 37 CFR §1.121. No new matter was added by these amendments.

Early reconsideration and allowance of the pending claims is respectfully requested. If the Patent Examiner believes that a telephone interview would expedite prosecution of this patent application, please call the undersigned at (206) 442-6676.

Respectfully Submitted,

Scott R. Presnell et al.

A large, stylized handwritten signature in black ink, appearing to read 'Jennifer K. Johnson', is written over the typed name and registration number.

Jennifer K. Johnson, J.D.

Registration No. 43,696

Enclosures:

Amendment Fee Transmittal (in duplicate)

Explanation of Amendments with Markings (4 pages)

Appendix (4 pages)

Postcard



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**EXPLANATION OF AMENDMENTS WITH MARKINGS TO SHOW CHANGES  
MADE**

IN THE CLAIMS

Please cancel claims 4-7, and 43-46 without prejudice to the prosecution thereof in a subsequent or continuing application.

4. ~~An isolated polypeptide, comprising an amino acid sequence that is at least 70% identical to a reference amino acid sequence of SEQ ID NO:2 selected from the group consisting of: (a) amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.~~

5. ~~The isolated polypeptide of claim 4, wherein the isolated polypeptide has an amino acid sequence that is at least 80% identical to the reference amino acid sequence.~~

6. ~~The isolated polypeptide of claim 4, wherein the isolated polypeptide has an amino acid sequence that is at least 90% identical to the reference amino acid sequence.~~

7. ~~The isolated polypeptide of claim 4, wherein the isolated polypeptide comprises either amino acid residues 22 to 231 of SEQ ID NO:2 or amino acid residues 22 to 210 of SEQ ID NO:2.~~

43. ~~An isolated soluble cytokine receptor polypeptide comprising a sequence of amino acid residues that is at least 90% identical to an amino acid sequence as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210, and~~

~~wherein the soluble cytokine receptor polypeptide binds IL-11F or antagonizes IL-11F activity.~~

~~44. An isolated polypeptide according to claim 43, wherein the soluble cytokine receptor polypeptide forms a homodimeric, heterodimeric or multimeric receptor complex.~~

~~45. An isolated polypeptide according to claim 44, wherein the soluble cytokine receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble Class I or Class II cytokine receptor.~~

~~46. An isolated polypeptide according to claim 44, wherein the soluble cytokine receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble CRF2-4 receptor polypeptide (SEQ ID NO:35), a soluble IL-10 receptor polypeptide (SEQ ID NO:36), or soluble zeytor11 receptor polypeptide (SEQ ID NO:34).~~

Please amend the following claims:

2. (Amended) ~~The~~ An isolated polypeptide ~~of claim 1, wherein the polypeptide that~~ comprises an amino acid sequence selected from the group consisting of: (a) amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.

3. (Amended) The isolated polypeptide of claim ~~1~~ 2, wherein the polypeptide consists of an amino acid sequence selected from the group consisting of: (a) amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.

50. (Amended) An isolated polypeptide according to claim 47, wherein the soluble cytokine receptor polypeptide further comprises an affinity tag, chemical moiety, toxin, ~~or label~~, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

54. (Amended) A method of producing a soluble cytokine receptor polypeptide that forms a heterodimeric or multimeric complex comprising:

culturing a cell ~~according to claim 33~~ comprising an expression vector comprising the following operably linked elements:

(a) a transcription promoter; a first DNA segment encoding a soluble cytokine receptor polypeptide having an amino acid sequence as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210; and a transcription terminator; and

(b) a second transcription promoter; a second DNA segment encoding a soluble Class I or Class II cytokine receptor polypeptide; and a transcription terminator; and

wherein the first and second DNA segments are contained within a single expression vector or are contained within independent expression vectors; and

wherein the cell expresses the polypeptides encoded by the DNA segments; and  
isolating the soluble receptor polypeptides produced by the cell.

Please add the following new claims:

--67. The isolated polypeptide of claim 2, wherein the polypeptide further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

68. An isolated soluble cytokine receptor polypeptide homodimeric receptor complex comprising a sequence of amino acid residues as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210.

69. The isolated soluble cytokine receptor polypeptide homodimeric receptor complex of claim 68, wherein the homodimeric receptor complex further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor,

inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

70. The isolated soluble cytokine receptor polypeptide homodimeric receptor complex of claim 68, wherein the homodimeric receptor complex binds IL-TIF (SEQ ID NO:15) or antagonizes IL-TIF activity.

71. A method of producing a soluble cytokine receptor polypeptide homodimeric receptor complex comprising:

culturing a cell comprising an expression vector comprising the following operably linked elements:

(a) a transcription promoter;

(b) a DNA segment encoding a soluble cytokine receptor polypeptide having an amino acid sequence as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210; and

(c) a transcription terminator; and

wherein the cell expresses the polypeptide encoded by the DNA segment; and

wherein the polypeptide forms a homodimeric receptor complex; and

isolating the homodimeric receptor complex produced by the cell. --



## APPENDIX

## Claim Set with Amended and Added Claims

## CLAIMS

I claim:

1. An isolated polypeptide, comprising at least 15 contiguous amino acid residues of an amino acid sequence of SEQ ID NO:2 selected from the group consisting of: (a) amino acid residues amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.

2. An isolated polypeptide that comprises an amino acid sequence selected from the group consisting of: (a) amino acid residues amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.

3. The isolated polypeptide of claim 2, wherein the polypeptide consists of an amino acid sequence selected from the group consisting of: (a) amino acid residues amino acid residues 21 to 231, (b) amino acid residues 21 to 210, (c) amino acid residues 22 to 231, (d) amino acid residues 22 to 210, (e) amino acid residues 22 to 108, (f) amino acid residues 112 to 210, and (g) amino acid residues 21 to 110.

19. A fusion protein, comprising the polypeptide of claim 3.

20. The fusion protein of claim 19, wherein the fusion protein further comprises an immunoglobulin moiety.

47. An isolated soluble cytokine receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210, wherein the soluble cytokine receptor polypeptide forms a homodimeric, heterodimeric or multimeric receptor complex.

48. An isolated polypeptide according to claim 47, wherein the soluble cytokine receptor polypeptide forms a heterodimeric or multimeric receptor complex further comprising a soluble Class I or Class II cytokine receptor.

49. An isolated polypeptide according to claim 47, wherein the soluble cytokine receptor polypeptide forms a heterodimeric or multimeric receptor complex comprising a soluble CRF2-4 receptor polypeptide (SEQ ID NO:35), a soluble IL-10 receptor polypeptide (SEQ ID NO:36), or soluble zcytor11 receptor polypeptide (SEQ ID NO:34).

50. An isolated polypeptide according to claim 47, wherein the soluble cytokine receptor polypeptide further comprises an affinity tag, chemical moiety, toxin, label, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

51. An isolated heterodimeric or multimeric soluble receptor complex comprising soluble receptor subunits, wherein at least one of the soluble receptor subunits comprises a soluble cytokine receptor polypeptide comprising a sequence of amino acid residues as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210.

52. An isolated heterodimeric or multimeric soluble receptor complex according to claim 51, further comprising a soluble Class I or Class II cytokine receptor polypeptide.

53. An isolated heterodimeric or multimeric soluble receptor complex according to claim 51, further comprising a soluble CRF2-4 receptor polypeptide (SEQ ID NO:35), a



soluble IL-10 receptor polypeptide (SEQ ID NO:36), or soluble zcytor11 receptor polypeptide (SEQ ID NO:34).

54. A method of producing a soluble cytokine receptor polypeptide that forms a heterodimeric or multimeric complex comprising:

culturing a cell comprising an expression vector comprising the following operably linked elements:

(a) a transcription promoter; a first DNA segment encoding a soluble cytokine receptor polypeptide having an amino acid sequence as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210; and a transcription terminator; and

(b) a second transcription promoter; a second DNA segment encoding a soluble Class I or Class II cytokine receptor polypeptide; and a transcription terminator; and

wherein the first and second DNA segments are contained within a single expression vector or are contained within independent expression vectors; and

wherein the cell expresses the polypeptides encoded by the DNA segments; and

isolating the soluble receptor polypeptides produced by the cell.

67. The isolated polypeptide of claim 2, wherein the polypeptide further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor, inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

68. An isolated soluble cytokine receptor polypeptide homodimeric receptor complex comprising a sequence of amino acid residues as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210.

69. The isolated soluble cytokine receptor polypeptide homodimeric receptor complex of claim 68, wherein the homodimeric receptor complex further comprises an affinity tag, label, chemical moiety, toxin, biotin/avidin label, radionuclide, enzyme, substrate, cofactor,

inhibitor, fluorescent marker, chemiluminescent marker, toxin, cytotoxic molecule or an immunoglobulin Fc domain.

70. The isolated soluble cytokine receptor polypeptide homodimeric receptor complex of claim 68, wherein the homodimeric receptor complex binds IL-TIF (SEQ ID NO:15) or antagonizes IL-TIF activity.

71. A method of producing a soluble cytokine receptor polypeptide homodimeric receptor complex comprising:

culturing a cell comprising an expression vector comprising the following operably linked elements:

(a) a transcription promoter;

(b) a DNA segment encoding a soluble cytokine receptor polypeptide having an amino acid sequence as shown in SEQ ID NO:2 from amino acid 22-231 or 22-210; and

(c) a transcription terminator; and

wherein the cell expresses the polypeptide encoded by the DNA segment; and

wherein the polypeptide forms a homodimeric receptor complex; and

isolating the homodimeric receptor complex produced by the cell.